

**In the Claims**

Please amend the claims as follows. Applicant submits a new complete claim set in which insertions and deletions in marked-up claims are indicated by underlining and strikeouts, respectively.

Please rewrite the claims, and add new claims, as indicated below:

- 1-36. (Canceled)
37. (Currently amended) A method of stimulating or enhancing a protective immune response to an antigen in a mammal; which method comprises co-administering to a mucosal surface of said mammal with the antigen an effective adjuvant amount of a non-toxic double mutant form of pertussis toxin, said antigen being one which elicits a protective immune response when co-administered with said effective adjuvant amount of said non-toxic double mutant form of pertussis toxin, wherein said non-toxic double mutant form of pertussis toxin comprises an S<sub>1</sub> sub unit containing an amino acid at position 129 which is other than glutamic acid and containing an amino acid at position 9 which is other than arginine, and wherein said antigen is not pertussis toxin.
38. (Canceled)
39. (Previously presented) A method according to claim 37, wherein the amino acid at position 129 in the S<sub>1</sub> sub-unit is glycine.
40. (Canceled)
41. (Previously presented) A method according to claim 37 wherein the amino acid at position 9 is lysine.
42. (Previously presented) A method according to claim 37 wherein the antigen and the non-toxic form of pertussis toxin are administered intranasally.
43. (Previously presented) A method according to claim 37 wherein the antigen and the non-toxic double mutant form of pertussis toxin are administered at the same time.

44. (Previously presented) A method according to claim 43 wherein the antigen and the non-toxic double mutant form of pertussis toxin are present in admixture in a composition administered to the mammal.

45. (Previously presented) A method according to claim 37 wherein the antigen is selected from the group consisting of tetanus toxin C-fragment, and one or more immunogenic fragments thereof.

46. (Previously presented) A method according to claim 37 wherein the antigen is selected from the group consisting of FHA and P69.

47-54. (withdrawn)

55. (Previously presented) A method according to claim 46 wherein both FHA and P69 are co-administered with the non-toxic double mutant form of pertussis toxin.